

A User-Centered Design Process to Positively Influence User Engagement with Mobile Health (mHealth)

Tochukwu Ikwunne, Lucy Hederman, P. J. Wall
ikwunnet@tcd.ie , hederman@scss.tcd.ie, pj.wall@tcd.ie

ADAPT Centre, School of Computer Science & Statistics,
Trinity College Dublin

Introduction

- ❖ User engagement- a quality of the user experience that emphasizes the positive aspects of interaction – in particular the fact of being captivated by the technology (Attfield et al., 2011).
- ❖ Although promising in mobile health research, the key challenge is how mHealth interventions can improve user engagement.
- ❖ Any engagement strategies used should consider users' needs and the technology involved. Socio-technical factors including ethical, political, social and considerations associated with user engagement should also be considered (McCurdie et al., 2012).

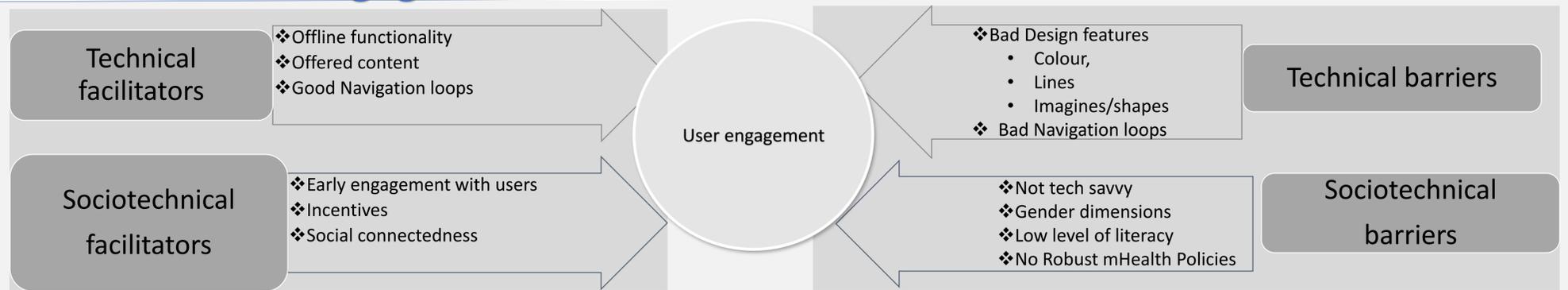
Research question

- ❖ How can a user centric design process be developed to positively influence user engagement in mHealth technologies?

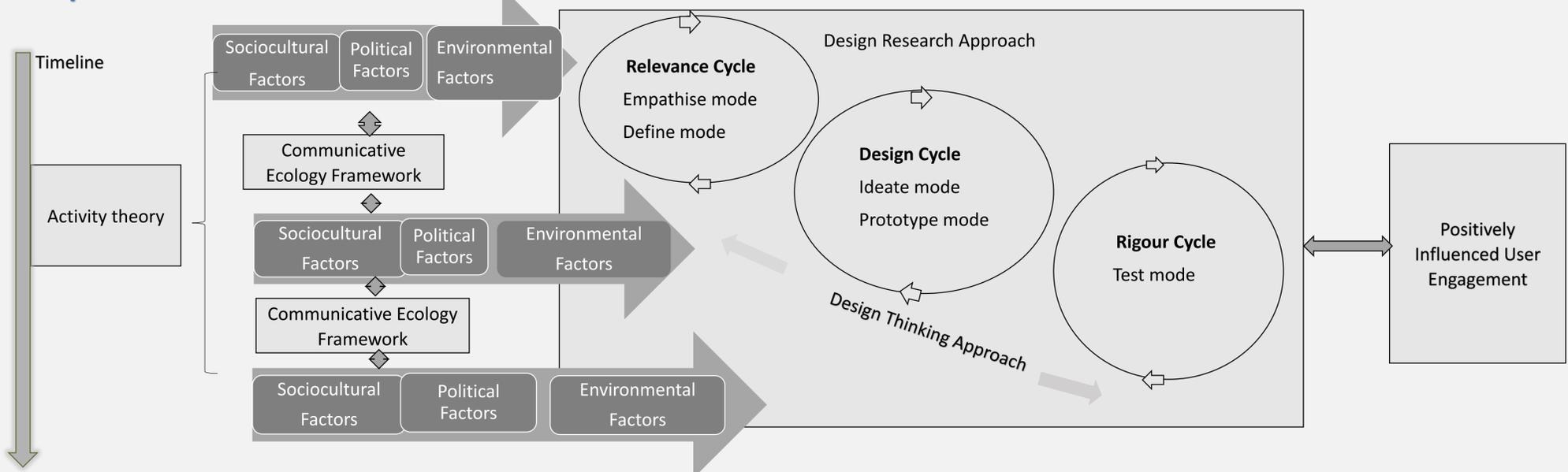
Research objectives

- ❖ Completion of a comprehensive review of design process frameworks for mHealth.
- ❖ Completion of a comprehensive review of user engagement and how it's being evaluated for mHealth.
- ❖ Development and validation of a theoretical and methodological framework built around activity theory and the communicative ecologies framework.
- ❖ Development of an improved user centered design process-**Design Process Engagement Enhancement System (DECENT)** design process from the outcome of the development and validation.

Common User Engagement Barriers and Facilitators



Proposed Model-DECENT



Expected Contributions

- ❖ An mHealth design process that positively influences user engagement.
- ❖ An enhanced understanding of design process to positively influence user engagement.

References

- ❖ Attfield, S., Kazai, G., Lalmas, M. and Piwowarski, B., 2011. Towards a science of user engagement (position paper). In *WSDM workshop on user modelling for Web applications* (pp. 9-12).
- ❖ McCurdie, T., Taneva, S., Casselman, M., Yeung, M., McDaniel, C., Ho, W. and Cafazzo, J., 2012. mHealth consumer apps: the case for user-centered design. *Biomedical instrumentation & technology*, 46(s2), pp.49-56.